


However, both Examiners Thomas and Reichard felt that further searching would be necessary in view of the (proposed) new limitations. The Examiners took the position that further searching could not be done in the instant application; thus, Examiner Reichard suggested that applicants file a Request for Continuing Examination (RCE).

However, as other claims had previously been indicated to be allowable in the 09/283,100 application, applicants, as discussed between Wayne E. Nacker and Examiner Thomas on 22 August 2001, have elected to have the allowable claims submitted in independent form by way of amendment in parent application 09/283,100 and those claims requiring additional searching to be presented in the instant application by way of Preliminary Amendment.

To assist the Examiners in their further searching, Applicants submit herewith a copy of the "Draft Amendment" that was discussed at the 16 August 2001 interview, a copy of the Interview Summary of 16 August 2001, and copies of the PTO-892 forms "Notice of References Cited" listing references cited of record in the 09/283,100 case. The claims, as currently submitted, are believed free of this art.

Prompt searching of and action on the currently submitted claims is courteously requested.

Respectfully submitted,


S. Matthew Cairns, Ph.D.
Attorney for Applicant
Registration No. 42,378
Telephone No: (508) 229-7545
Facsimile No.: (508) 485-0363

c/o EDWARDS & ANGELL
Dike, Bronstein, Roberts & Cushman IP Group
P.O. Box 9169
Boston, MA 02209
Date: 27 August, 2001

**Attachment
Newly Added Claims**

518
C15-
--37. (New) A layered structure for forming a thin layer capacitor comprising a metal foil formed of a metal selected from the group consisting of copper, zinc, nickel, iron, niobium, molybdenum, titanium, nickel/chromium alloy, iron/nickel/chromium alloy and aluminum, and a dielectric material deposited on the foil, wherein the dielectric material is a layer having a thickness of from about 0.03 to about 2 microns, said metal foil having an exposed surface and said dielectric material layer having an exposed surface.

(7)
38. (New) The layered structure of Claim 37 wherein said dielectric material contains between about 1 wt% and about 100 wt% silica.

39. (New) The layered structure of Claim 37 wherein said metal foil is selected from the group consisting of copper foil, nickel foil and aluminum foil.

518
C15-
40. (New) The layered structure according to Claim 37 said second metal layer is a metal layer deposited on said dielectric material layer.

41. (New) The layered structure according to Claim 40 wherein said foil is between about 12 and about 110 microns.

42. (New) The layered structure according to Claim 37 wherein said dielectric material layer is selected from the group consisting of BST, SrTiO₃, Ta₂O₅, TiO₂, MnO₂, Y₂O₃, SnO₂, and PLZT.

43. (New) The layered structure according to Claim 37 wherein said dielectric material layer is selected from the group consisting of barium titanium oxide, zirconium-doped barium titanium oxide, and tin-doped barium titanium oxide.

44. (New) The layered structure according to Claim 37 wherein said dielectric material layer is selected from the group consisting of WO₃, SrO, mixed tungsten strontium oxides, and BaWO₄.

Attachment
Newly Added Claims

45. (New) The layered structure according to Claim 37 wherein said dielectric material is an oxide or mixed oxide that contains an element selected from the group consisting of Ti, Ta, Nb, Zr, W, Mo, and Sn.

513
C12 →
46. (New) The layered structure in accordance with Claim 37 wherein said first metal layer has a surface roughness on the side of said dielectric material layer of at least about 1.1 cm^2/cm^2 .

513
C12 →
47. (New) The layered structure in accordance with Claim 37 wherein said dielectric material layer is lossy having an electrical conductivity value of from about 10^{-1} to about 10^{-5} amperes per cm^2 .

513
C12 →
48. (New) A layered structure for acting as or forming at least one thin layer capacitor comprising, in sequence, a first metal layer selected from the group consisting of copper, zinc, nickel, iron, niobium, molybdenum, titanium, nickel/chromium alloy, iron/nickel/chromium alloy and aluminum, a dielectric material deposited on the first metal layer and having a thickness of from about 0.03 to about 2 microns and wherein the dielectric material contains a cation other than that of the metal from which the metal foil is formed, and a second metal layer, said first and second metal layers each having an exposed surface.

49. (New) The layered structure of Claim 48 wherein said dielectric material contains between about 1 wt% and about 100 wt% silica.

50. (New) The structure according to Claim 48 wherein said first metal layer is a foil.

513
C12 →
51. (New) The layered structure of Claim 48 wherein said metal foil is selected from the group consisting of copper foil, nickel foil and aluminum foil.

52. (New) The layered structure according to Claim 48 wherein said first metal layer is a metal foil and said second metal layer is a metal layer deposited on said dielectric material layer.

53. (New) The layered structure according to Claim 52 wherein said foil is between about 12 and about 110 microns thick and said second metal layer is between about 0.5 and about 3 microns thick.

Attachment
Newly Added Claims

54. (New) The layered structure according to Claim 48 wherein said first metal layer is a coating between about 0.5 and about 3 microns thick on a polymeric support sheet.

55. (New) The layered structure according to Claim 48 wherein said dielectric material layer comprises between about 1 wt% and 100 % silica.

56. (New) The layered structure according to Claim 48 wherein said dielectric material layer is selected from the group consisting of BST, SrTiO₃, Ta₂O₅, TiO₂, MnO₂, Y₂O₃, SnO₂, and PLZT.

57. (New) The layered structure according to Claim 48 wherein said dielectric material layer is selected from the group consisting of barium titanium oxide, zirconium-doped barium titanium oxide, and tin-doped barium titanium oxide.

58. (New) The layered structure according to Claim 48 wherein said dielectric material layer is selected from the group consisting of WO₃, SrO, mixed tungsten strontium oxides, and BaWO₄.

59. (New) The layered structure according to Claim 48 wherein said dielectric material is an oxide or mixed oxide that contains an element selected from the group consisting of Ti, Ta, Nb, Zr, W, Mo, and Sn.

60. (New) The layered structure in accordance with Claim 48 wherein said first metal layer has a surface roughness on the side of said dielectric material layer of at least about 1.1 cm²/cm².

61. (New) The layered structure in accordance with Claim 48 wherein said dielectric material layer is lossy having an electrical conductivity value of from about 10⁻¹ to about 10⁻⁵ amperes per cm².

62. (New) A layered structure for forming a thin layer capacitor comprising:
a flexible polymer support sheet,

an un-patterned first metal layer formed on said flexible polymer support sheet, said first metal layer being release-able from said support sheet, the metal being selected from the group

Attachment
Newly Added Claims

consisting of copper, zinc, nickel, iron, niobium, molybdenum, titanium, nickel/chromium alloy, iron/nickel/chromium alloy and aluminum.

a dielectric layer formed on said un-patterned first metal layer between about 0.03 and about 2 microns thick, and

a second metal layer formed on said flexible polymer support sheet, the metal being selected from the group consisting of copper, zinc, nickel, iron, niobium, molybdenum, titanium, nickel/chromium alloy, iron/nickel/chromium alloy and aluminum, said second metal layer having an exposed surface.

63. (New) The layered structure of Claim 62 wherein said dielectric material contains between about 1 wt% and about 100 wt% silica.

64. (New) The layered structure according to Claim 62 wherein said dielectric material layer is selected from the group consisting of BST, SrTiO_3 , Ta_2O_5 , TiO_2 , MnO_2 , Y_2O_3 , SnO_2 , and PLZT.

65. (New) The layered structure according to Claim 62 wherein said dielectric material layer is selected from the group consisting of barium titanium oxide, zirconium-doped barium titanium oxide, and tin-doped barium titanium oxide.

66. (New) The layered structure according to Claim 62 wherein said dielectric material layer is selected from the group consisting of WO_3 , SrO , mixed tungsten strontium oxides, BaWO_4 , CeO_2 , and $\text{Sr}_{1-x}\text{Ba}_x\text{WO}_4$.

67. (New) The layered structure in accordance with Claim 62 wherein said first metal layer has a surface roughness on the side of said dielectric material layer of at least about $1.1 \text{ cm}^2/\text{cm}^2$.

68. (New) The layered structure in accordance with Claim 62 wherein said dielectric material layer is lossy having an electrical conductivity value of from about 10^{-1} to about 10^{-5} amperes per cm^2 .--

Docket No. 51006-2 (3535-35-00)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Hunt et al.

Serial No.: Not Yet Assigned

Examiner: Not Yet Assigned

Filed: Herewith

Group Art Unit: Not Yet Assigned

For: FORMATION OF THIN FILM CAPACITORS

Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Prior to examination of this application, Applicants respectfully request entry of this Amendment.

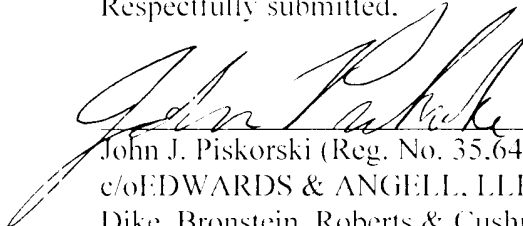
In the Claims

Please cancel claims 26-36.

REMARKS

With entry of this amendment, claims 1-25 are pending in the present application.

Respectfully submitted,


John J. Piskorski (Reg. No. 35,647)
c/o EDWARDS & ANGELL, LLP
Dike, Bronstein, Roberts & Cushman, IP Group
130 Water Street
Boston, MA 02109
(508) 229-7662